

IN THE CLAIMS

--1. (Currently Amended) A data recording/reproducing apparatus, comprising:

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a plurality of record mediums that are random-accessible, in which each of said
plurality of record mediums is operable to store therein at least two different types of data;
recording and reproducing means for recording and reproducing data to and from
said plurality of record mediums; and

a plurality of input and output processing means for accessing said recording and
reproducing means on time division basis, outputting said at least two different types of data
that are input from the outside to said recording and reproducing means, and outputting the
input data to the outside,

wherein each of said plurality of input and output processing means has:

input means for outputting record area information and the data that is input from the
outside to said reproducing and reproducing means so that the data is recorded to
predetermined areas of said plurality of record mediums corresponding to the different types
of data, and

wherein said recording and reproducing means records the different types of data to
the predetermined areas of said plurality of record mediums corresponding to the record area
information that is output from said input means.--

--2. (Original) The data recording and reproducing apparatus as set forth in claim
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wherein the different types of data are video data and audio data.--

--3. (Original) The data recording and reproducing apparatus as set forth in claim 1,

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wherein the record area information is information representing an address of a record start position and an address of a record end position of one of said plurality of record mediums.--

--4. (Original) A data recording and reproducing method for accessing recording and reproducing means, outputting data to the recording and reproducing means, inputting reproduced data that is output from the recording and reproducing means, and outputting the data to the outside, the recording and reproducing means recording and reproducing the data to a record medium that is random-accessible on time division basis, the data containing different types of data that are input from the outside, the method comprising the steps of:

(a) outputting record area information and the data to the recording and reproducing means so that the different types of data are recorded to predetermined areas of the record medium;

(b) recording the different types of data to the predetermined areas of the record medium corresponding to the record area information that is output to the recording and reproducing means at step (a); and

(c) reproducing the different types of data from the predetermined areas of the record medium, outputting the different types of data on time division basis, and outputting them to the outside.--

--5. (Original) The data recording and reproducing method as set forth in claim
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wherein the different types of data are video data and audio data.--

--6. (Original) The data recording and reproducing method as set forth in claim
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wherein the record area information is information representing an address of a
record start position and an address of a record end position of the record medium.--

--7. (Currently Amended) A data recording apparatus, comprising:
a record medium that is random-accessible and which is operable to store therein at
least two different types of data;
recording means for recording data to said record medium; and
a plurality of output processing means for accessing said recording means on time
division basis and outputting said at least two different types of data that are input from the
outside to said recording means,

wherein each of said output processing means has:
input means for outputting record area information and the data to said recording
means so that the different types of data are recorded to predetermined areas of said record
medium, and

wherein said recording means records the different types of data to the predetermined
areas corresponding to the record area information that is output from said input means.--

--8. (Original) The data recording apparatus as set forth in claim 7,
wherein the different types of data are video data and audio data.--

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--9. (Original) The data recording apparatus as set forth in claim 7,
wherein the record area information is information representing an address of a
record start position and an address of a record end position of said record medium.--

--10. (Original) A data recording method for accessing recording and reproducing
means, outputting data to the recording and reproducing means, and recording the data to the
recording and reproducing means, the recording and reproducing means recording the data to
a record medium that is random-accessible on time division basis, the data containing
different types of data that are input from the outside, the method comprising the steps of:

(a) outputting record area information and the data to the recording and reproducing
means so that the different types of data are recorded to predetermined areas of the record
medium; and

(b) recording the different types of data to the predetermined areas of the record
medium corresponding to the record area information that is output to the recording and
reproducing means at step (a).--

--11. (Original) The data recording and reproducing method as set forth in claim
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wherein the different types of data are video data and audio data.--

--12. (Original) The data recording and reproducing method as set forth in claim 10,

wherein the record area information is information representing an address of a record start position and an address of a record end position of the record medium---

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--13. (Currently Amended) A data recording and reproducing apparatus, comprising:

a record medium that is random-accessible and which is operable to store therein at least two different types of data;

recording and reproducing means for recording and reproducing the data to and from said record medium, the data containing video data and audio data; and

a plurality of input and output processing means for accessing said recording and reproducing means on time division basis, outputting data that is input from the outside to said recording and reproducing means, inputting data reproduced by said recording and reproducing means, and outputting the data to the outside,

wherein each of said input and output processing means has:

input means for changing the divide ratio of a record area for video data and a record area for audio data of said record medium corresponding to at least the data that is input from the outside and outputting record area information and the data to said recording and reproducing means so that the video data and the audio data are recorded to predetermined areas of the record medium, and

wherein said recording and reproducing means records the data to the predetermined areas of the record medium corresponding to the record area information that is output from

said input means, reproduces the data from said record medium, and outputs the reproduced data to each of said input and output processing means on time division basis.--

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--14. (Original) The data recoding and reproducing apparatus as set forth in claim 13,

wherein each of said input and output processing means changes the divide ratio corresponding to the transmission rate of the video data that is input from the outside and the number of channels of the audio data.--

--15. (Original) The data recoding and reproducing apparatus as set forth in claim 14,

wherein said record medium that is random-accessible is a disc shaped record medium, and

wherein each of said input and output processing means changes the divide ratio corresponding to a recording method of RAID for the audio data along with the transmission rate of the video data and the number of channels of the audio data.--

--16. (Original) The data recoding and reproducing apparatus as set forth in claim 13,

wherein the record area information is information representing an address of a record start position and an address of a record end position of said record medium.--

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--17. (Original) A data recording and reproducing method for accessing according and reproducing means, outputting data to the recording and producing means, inputting reproduced data that is output from the recording and reproducing means, and outputting the data to the outside, the recording and reproducing means recording and reproducing the data to and from a record medium that is random-accessible, the data containing video data and audio data that are input from the outside, the method comprising the steps of:

- (a) changing the divide ratio of a record area for the video data and a record area for the audio data on the record medium corresponding to at least the data that is input from the outside and outputting record area information and the data to the recording and reproducing means so that the video data and the audio data are recorded to different record areas of the record medium;
- (b) recording the video data and the audio data to the different record areas of the record medium corresponding to the record area information that is output to the recording and reproducing means at step (a); and
- (c) reproducing the data from the record medium and outputting the reproduced data to each of input and output processing means.--

--18. (Original) The data recording and reproducing method as set forth in claim 17,

wherein step (a) is performed by changing the divide ratio corresponding to the transmission rate of the video data that is input from the outside and the number of channels of the audio data.--

--19. (Original) The data recording and reproducing method as set forth in claim 18,

wherein the record medium that is random-accessible is a disc shaped record medium, and

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wherein step (a) is performed by changing the divide ratio corresponding to a recording method of RAID for the audio data along with the transmission rate of the video data and the number of channels of the audio data.--

--20. (Original) The data recording and reproducing method as set forth in claim 17,

wherein the record area information is information representing an address of a record start position and an address of a record end position of the record medium.--

--21. (Currently Amended) A data recording apparatus, comprising:
a record medium that is random-accessible and which is operable to store therein at least two different types of data;

recording means for recording the data containing that contains at least video data and audio data to said record medium;

a plurality of input and output processing means for accessing said recording means on time division basis and outputting data that is input from the outside to said recording means,

wherein each of said input and output processing means has:

input means for changing the divide ratio of a record area for the video data and a record area for the audio data of said record medium corresponding to at least the data that is

input from the outside and outputting record area information and the data to said recording means so that the video data and the audio data are recorded to different record areas of said record medium, and

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wherein said recording means records the data to the different record areas of said record medium corresponding to the record area information that is output from said input means.--

--22. (Original) The data recording apparatus as set forth in claim 21, wherein each of said input and output processing means changes the divide ratio corresponding to the transmission rate of the video data that is input from the outside and the number of channels of the audio data.--

--23. (Original) The data recording apparatus as set forth in claim 22, wherein said record medium that is random-accessible is a disc shaped record medium, and wherein each of said input and output processing means changes the divide ratio corresponding to a recording method of RAID for the audio data along with the transmission rate of the video data and the number of channels of the audio data.--

--24. (Original) The data recording apparatus as set forth in claim 21, wherein the record area information is information representing an address of a record start position and an address of a record end position of said record medium.--

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--25. (Original) A data recording method for accessing recording means, outputting data to the recording means, and recording the data, the recording means recording the data to a record medium that is random-accessible on the time division basis, the data containing video data and audio data that are input from the outside, the method comprising the steps of:

(a) changing the divide ratio of a record area for video data and a record area for audio data of the record medium corresponding to at least the data that is input from the outside and outputting record area information and the data to the recording means so that the video data and the audio data are recorded to the different record areas of the record medium; and

(b) recoding the video data and the audio data to the different record areas of the record medium corresponding to the record area information that is output to the recording means at step (a).--

--26. (Original) The data recording method as set forth in claim 25, wherein step (a) is performed by changing the divide ratio corresponding to the transmission rate of the video data that is input from the outside and the number of channels of the audio data.--

--27. (Original) The data recording method as set forth in claim 26,
wherein the record medium that is random-accessible is a disc shaped record
medium, and wherein step (a) is performed by changing the divide ratio corresponding to a
recording method of RAID for the audio data along with the transmission rate of the video
data and the number of channels of the audio data.--

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--28. (Original) The data recording method as set forth in claim 25,
wherein the record area information is information representing an address of a
record start position and an address of a record end position of the record medium.--

--29. (Withdrawn) A data recording and reproducing apparatus, comprising:
a plurality of record mediums that are random-accessible;
recording and reproducing means for recoding and reproducing data to and from said
plurality of record mediums, the data containing video data and audio data; and
a plurality of input and output processing means for accessing said recording and
reproducing means on time division basis, outputting data that is input from the outside to
said recoding and reproducing means, inputting data reproduced by said recoding and
reproducing means, and outputting the data to the outside, wherein each of said input and
output processing means has:

input means for outputting record area information and the data to said recording and
reproducing means so that the video data is recorded corresponding to RAID3 composed of
the plurality of record mediums, that the audio data is recorded to a record area different from
a record area for the video data of the same record medium, and that parity data of the audio
data is recorded to a record medium different from the record medium for the audio data and

the same as the record medium for the video data, the record area for the parity data being different from the record area for the video data, and

wherein said recording and reproducing means records the data to the record areas of said record mediums and reproduces the data from said plurality of record mediums corresponding to the record area information that is output from said input means--

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--30. (Withdrawn) The data recording and reproducing apparatus as set forth in claim 29,

wherein the record area information is information representing an address of a record start position and an address of a record end position of each of said plurality of record mediums.--

--31. (Withdrawn) A data recoding and reproducing method for accessing recording and reproducing means, outputting data to the recording and reproducing means, inputting

data reproduced by the recoding and reproducing means, and recording and reproducing the data, the recording and reproducing means recording and reproducing the data to and from a plurality of record mediums that are random-accessible on time division basis, the data containing video data and audio data that are input from the outside, the method comprising the steps of:

(a) outputting record area information and the data to the recording and reproducing means so that the video data is recorded corresponding to RAID3composed of the plurality of record mediums, that the audio data is recorded to a record area different from a record area for the video data of the same record medium, and that parity data of the audio data is

recorded to a record medium different from the record medium for the audio data and the same as the record medium for the video data, the record area for the parity data being different from the record area for the video data;

- (b) recording the data to the record areas of the plurality of record medium corresponding to the record area information that is output to the recording and reproducing means at step (a); and
- (c) reproducing the data recorded at step (b), outputting the data on time division basis, and outputting the data to the outside.--

--32. (Withdrawn) The data recording and reproducing method as set forth in claim 31,

wherein the record area information is information representing an address of a record start position and an address of a record end position of each of the plurality of record mediums.--

--33. (Withdrawn) A data recording apparatus, comprising:

a plurality of record mediums that are random-accessible;

recording and reproducing means for recording and reproducing data to and from said plurality of record mediums, the data containing video data and audio data; and

a plurality of input and output processing means for accessing said recording and reproducing means on time division basis and outputting data that is input from the outside to said recording means, wherein each of said input and output processing means has:

input means for outputting record area information and the data to said recording and

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reproducing means so that the video data is recorded corresponding to RAID3 composed of the plurality of record mediums, that the audio data is recorded to a record area different from a record area for the video data of the same record medium, and that parity data of the audio data is recorded to a record medium different from the record medium for the audio data and the same as the record medium for the video data, the record area for the parity data being different from the record area for the video data, and

wherein said recording means records the data to the record areas of said plurality of record mediums corresponding to the record area information that is output from said input means.--

--34. (Withdrawn) The data recording apparatus as set forth in claim 33, wherein the record area information is information representing an address of a record start position and an address of a record end position of each of said plurality of record mediums.--

--35. (Withdrawn) A data recording method for accessing recording means, outputting data to the recording means, and recoding the data, the recording means recording the data to a record medium that is random-accessible on time division basis, the data containing video data and audio data that are input from the outside, the method comprising the steps of:

(a) outputting record area information and the data to the recording and reproducing means so that the video data is recorded corresponding to RAID3 composed of the plurality of record mediums, that the audio data is recorded to a record area different from a record area for the video data of the same record medium, and that parity data of the audio data is

recorded to a record medium different from the record medium for the audio data and the same as the record medium for the video data, the record area for the parity data being different from the record area for the video data; and

(b) recording the data to the record areas of the plurality of record mediums corresponding to the record area information that is output to the recording means at step (a).--

--36. (Withdrawn) The data recording method as set forth in claim 35, wherein the record area information is information representing an address of a record start position and an address of a record end position of each of the plurality of record mediums. --

--37. (Withdrawn) A data recording and reproducing apparatus, comprising:
a plurality of record mediums that are random-accessible;
recoding and reproducing means for recording and reproducing data to and from said plurality of record mediums, the data containing video data and audio data; and
a plurality of input and output processing means for accessing said recording and reproducing means on time division basis, outputting data that is input from the outside to said recording and reproducing means, inputting data reproduced by said recording and reproducing means, and outputting the data to the outside,

wherein each of said input and output processing means has:

input means for outputting record area information and the data to said recording and

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reproducing means so that the video data is recorded corresponding to RAID3 composed of the plurality of record mediums, that the audio data is recorded to a record area different from a record area for the video data of the same record medium, and that different channels of the audio data are recorded to different record mediums, and

wherein said recording and reproducing means records the data to the record areas of said plurality of record mediums corresponding to the record area information that is output from said input means and reproduces the data recorded on said plurality of record mediums.--

--38. (Withdrawn) The data recoding and reproducing apparatus as set forth in claim 37,

wherein the record area information is information representing an address of a record start position and an address of a record end position of each of said plurality of record mediums.--

--39. (Withdrawn) A data recoding and reproducing method for accessing recording and reproducing means, outputting data to the recoding and reproducing means, inputting data reproduced by the recording and reproducing means, and recording and reproducing the data, the recording and reproducing means recoding and reproducing the data to and from a plurality of record mediums that are random-accessible on time division basis, the data containing video data and audio data that are input from the outside, the method comprising the steps of:

(a) outputting record area information and the data to the recording and reproducing means so that the video data is recorded corresponding to RAID3 composed of the plurality of record mediums, that the audio data is recorded to a record area different from a record area for the video data of the same record medium, and that different channels of the audio data are recorded to different record mediums;

(b) recording the data to the record areas of the plurality of record mediums corresponding to the record area information that is output to the recording and reproducing means at step (a); and

(c) reproducing the data recorded at step (b), outputting the reproduced data on time division basis, and outputting the data to the outside.--

--40. (Withdrawn) The data recoding and reproducing method as set forth in claim 39,

wherein the record area information is information representing an address of a record start position and an address of a record end position of each of the plurality of record mediums.--

--41. (Withdrawn) A data recording apparatus, comprising:
a plurality of record mediums that are random-accessible;
recording means for recoding data to said plurality of record mediums, the data containing video data and audio data; and
a plurality of input and output processing means for accessing said recoding means on time division basis and outputting data that is input from the outside to said recording means, wherein each of said input and output processing means has:

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input means for outputting record area information and the data to said recording and reproducing means so that the video data is recorded corresponding to RAID3 composed of the plurality of record mediums, that the audio data is recorded to a record area different from a record area for the video data of the same record medium, and that different channels of the audio data are recorded to different record mediums, and wherein said recording means records the data to the record areas of said plurality of record mediums corresponding to the record area information that is output from said input means.--

--42. (Withdrawn) The data recording apparatus as set forth in claim 41, wherein the record area information is information representing an address of a record start position and an address of a record end position of each of said plurality of record mediums.--

--43. (Withdrawn) A data recording method for accessing recording means, outputting data to the recording means, and recording the data, the recording means recording the data to a plurality of record mediums that are random-accessible on time division basis, the data containing video data and audio data that are input from the outside, the method comprising the steps of:

(a) outputting record area information and the data to the recording and reproducing means so that the video data is recorded corresponding to RAID3 composed of the plurality of record mediums, that the audio data is recorded to a record area different from a record area for the video data of the same record medium, and that different channels of the audio data are recorded to different record mediums; and

(b) recording the data to the record areas of the plurality of record mediums corresponding to the record area information that is output to the recording means at step
(a).--

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--44. (Withdrawn) The data recording method as set forth in claim 43, wherein the record area information is information representing an address of a record start position and an address of a record end position of each of the plurality of record mediums.--

--45. (Withdrawn) A data recording and reproducing apparatus, comprising:
a plurality of record mediums that are random-accessible;
recording and reproducing means for recording and reproducing data to and from said plurality of record mediums, the data containing video data and audio data; and
a plurality of input and output processing means for accessing said recording and reproducing means on time division basis, outputting data that is input from the outside to said recording and reproducing means, and inputting data reproduced by said recording and reproducing means, wherein each of said input and output processing means has:
input means for outputting record area information and the data to said recording and reproducing means so that the video data is recorded corresponding to RAID3 composed of the plurality of record mediums, that the audio data is recorded to a record area different from a record area for the video data of the same record medium, and that the same audio data is recorded to the plurality of record mediums, and

wherein said recording and reproducing means records the data to the record areas of said plurality of record mediums corresponding to the record area information that is output from said input means.--

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--46. (Withdrawn) The data recording and reproducing apparatus as set forth in claim 45,

wherein said input means outputs the record area information so that the audio data is recorded to a record area different from a record area for the video data of the same record medium and that the audio data is recorded corresponding to RAID1.--

--47. (Withdrawn) The data recoding and reproducing apparatus as set forth in claim 45,

wherein the record area information is information representing an address of a record start position and an address of a record end position of each of said plurality of record mediums.--

--48. (Withdrawn) A data recording and reproducing method for accessing recording and reproducing means, outputting data to the recording and reproducing means, inputting data reproduced by the recording and reproducing means, and recoding and reproducing the data, the recording and reproducing means recording and reproducing the data to and from a plurality of record mediums that are random-accessible on time division basis, the data containing video data and audio data that are input from the outside, the method comprising the steps of:

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(a) outputting record area information and the data to the recording and reproducing means so that the video data is recorded corresponding to RAID3 composed of the plurality of record mediums, that the audio data is recorded to a record area different from a record area for the video data of the same record medium, and that the same audio data is recorded to the plurality of record mediums;

(b) recording the data to the record areas of the plurality of record medium corresponding to the record area information that is output to the recoding and reproducing means at step (a); and

(c) reproducing the data recorded at step (b), outputting the data on time division basis, and outputting the data to the outside.--

--49. (Withdrawn) The recording and reproducing method as set forth in claim 48,

wherein step (a) is performed by outputting the record area information so that the audio data is recorded to a record area different from a record area for the video data of the same record medium and that the audio data is recorded corresponding to RAID1--

--50. (Withdrawn) The recording and reproducing method as set forth in claim 48,

wherein the record area information is information representing an address of a record start position and an address of a record end position of each of the plurality of record mediums.--

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--51. (Withdrawn) A data recording apparatus, comprising:

a plurality of record mediums that are random-accessible;

recording and reproducing means for recording and reproducing data to and from said plurality of record mediums, the data containing video data and audio data; and

a plurality of input and output processing means for accessing said recording and reproducing means on time division basis and outputting data that is input from the outside to said recording and reproducing means,

wherein each of said input and output processing means has:

input means for outputting record area information and the data to said recording and reproducing means so that the video data is recorded corresponding to RAID3 composed of the plurality of record mediums, that the audio data is recorded to a record area different from a record area for the video data of the same record medium, and that the same audio data is recorded to the plurality of record mediums, and

wherein said recording and reproducing means records the data to the record areas of said plurality of record mediums corresponding to the record area information that is output from said input means.--

--52. (Withdrawn) The data recording apparatus as set forth in claim 51,

wherein said input means outputs the record area information so that the audio data is recorded to a record area different from a record area for the video data of the same record medium and that the audio data is recorded corresponding to RAID1.--

--53. (Withdrawn) The data recording apparatus as set forth in claim 51,
wherein the record area information is information representing an address of a
record start position and an address of a record end position of each of said plurality of record
mediums.--

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--54. (Withdrawn) A data recording method for accessing recording means,
outputting data to the recording means, and recording the data, the recording means
recording the data to a plurality of record mediums that are random-accessible on time
division basis, the data containing video data and audio data that are input from the outside,
the method comprising the steps of:

(a) outputting record area information and the data to the recording and reproducing
means so that the video data is recorded corresponding to RAID3 composed of the plurality
of record mediums, that the audio data is recorded to a record area different from a record
area for the video data of the same record medium, and that the same audio data is recorded
to the plurality of record mediums; and

(b) recording the data to the record areas of the plurality of record mediums
corresponding to the record area information that is output to the recording means at step
(a).--

--55. (Withdrawn) The data recording method as set forth in claim 54,
wherein step (a) is performed by outputting the record area information so that the
audio data is recorded to a record area different from a record area for the video data of the
same record medium and that the audio data is recorded corresponding to RAID1...--

--56. (Withdrawn) The data recording method as set forth in claim 54,
wherein the record area information is information representing an address of a
record start position and an address of a record end position of each of the plurality of record
mediums.--
